

## Sequence Listing

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<110> Chen, Jian  
 Filvaroff, Ellen  
 Goddard, Audrey  
 Gurney, Austin  
 Li, Hanzhong  
 Wood, William I.

<120> IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES  
 THEREOF

<130> P1381-R1

<141> 1999-05-14

<150> US 60/085,579  
 <151> 1998-05-15

<150> US 60/113,621  
 <151> 1998-12-23

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Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val  
 35 40 45

Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu  
 50 55 60

Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn  
 65 70 75

Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu  
 80 85 90

Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile  
 95 100 105  
 5 Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg  
 110 115 120  
 Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp  
 125 130 135  
 10 Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg  
 140 145 150  
 Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln  
 15 155 160 165  
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 aaaccgtatg cccgcatgga ggagtatgag aggaacatcg aggagatggt 250  
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 45 tgcccggcac cgccccgcac agggccttgc cgccagcgcg cagtcatgga 550  
 gaccatcgct gtgggctgca cctgcatctt ctgaatcacc tggcccagaa 600

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<213> Homo sapiens

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Cys	Leu	Ala	His	His	Asp	Pro	Ser	Leu	Arg	Gly	His	Pro	His	Ser
				20					25					30

His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
				35					40					45

20

Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
				50					55					60

25

Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
				65					70					75

Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
				80					85					90

30

Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
				95					100					105

Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
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35

Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
				125					130					135

40

Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
				140					145					150

Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
				155					160					165

45

Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
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Ser Val

5 197

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gcccaccatg acccctccct cagggggcac cccacagtc acggtacccc 150

20 aactgctac tcggctgagg aactgccct cggccaggcc cccccacacc 200

tgctggctcg aggtgccaaag tgggggcagg ctttgctgt agccctgggtg 250

tccagcctgg aggcagcaag ccacaggggg aggcacgaga ggccctcagc 300

25 tacgaccag tgcccgggtgc tgcggccgga ggaggtgttg gaggcagaca 350

cccaccagcg ctccatctca cctggagat accgtgtgga cacggatgag 400

gaccgctatc cacagaagct ggccttcgcc gagtgcctgt gcagaggctg 450

30 tatcgatgca cggacggggc gcgagacagc tgcgctcaac tccgtgcggc 500

tgctccagag cctgctgggtg ctgcgcgcgc ggccctgctc ccgcgacggc 550

35 tcgggggtcc ccacacctgg ggcctttgcc ttccacaccg agttcatcca 600

cgtccccgctc ggctgcacct gcgtgctgcc ccgttcagtg tgaccgccga 650

ggccgtgggg cccctagact ggacacgtgt gctccccaga gggcaccccc 700

40 tatttatgtg tatttattgt tatttatatg cctcccccaa cactaccctt 750

ggggtctggg cattccccgt gtctggagga cagcccccca ctgttctcct 800

45 catctccagc ctcagtagtt gggggtagaa ggagctcagc acctcttcca 850

gcccttaaag ctgcagaaaa ggtgtcacac ggctgcctgt accttggtc 900

cctgtcctgc tcccggett ccttacccta tcaactggcct caggccccgc 950  
 aggetgcctc ttcccaacct ccttggaagt acccctgttt cttaaacaat 1000  
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 gctcnnnnnn nnnnnaattc ggtacgaggc tggggttcag gcgggcagca 150  
 gctgcaggct gaccttgcag cttggcgga tggactggcc tcacaacctg 200  
 25 ctgtttcttc ttaccatttc catcttcctg gggctgggcc agcccaggag 250  
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 30 gccctcacca ggtgccactg gacctggtgt cacggatgaa accgtatgcc 350  
 cgcattggagg agtatgagag gaacatcgag gagatgttgg ccagctgag 400  
 gaacagttca gagctggccc agagaaagtg tgaggtcaac ttgcagctgt 450  
 35 ggatgtccaa caagaggagc ctgtctccct ggggctacag catcaaccac 500  
 gaccccagcc gtatccccgt ggacctccgg aggcacggtg cctgtgtctg 550  
 40 ggcttgtgtg aacccttca ccatgcagga ggaccgcagc atggtgagcg 600  
 tgccgggtgtt cagccagggt cctgtgcgcc gccgcctctg cccgccaccg 650  
 cccgcacag ggccttgccg ccagcgcgca gtcattggaga ccatcgctgt 700  
 45 gggctgcacc tgcattctct gaatcgacct ggcccagaag ccaggccagc 750  
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20 agccaggagc cccaaaagca agaggaaggg gcaagggcgg cctgggccc 150

tggcctggcc tcaccaggtg cacttgacc tgggtgcacg gatgaaaccg 200

tatgcccgc tggaggagta tgagaggaac atcgaggaga tgggtggcca 250

25 gctgaggaac agctcanaag ctggcccaga gaaagtgtga ggtcaacttg 300

cagctgtgga tgtccaacaa gaaggagcct gtctcccttg gggctacaag 350

30 catcaaccac cgacccagc cgtatccccg tgggaccttg ccgggac 397

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40 gcagaggctg tatcgatgca cggacgggcc gcgagacagc tgcgctcaac 100

tccgtgcggc tgcctccagag cctgctggtg ctgcgccgcc ggccctgctc 150

ccgcgaacggc tcggggctcc ccacacctgg ggcctttgcc ttccacaccg 200

45 agttcatcca cgtccccgtc ggctgcacct 230

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<211> 24

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<210> 9

<211> 24

<212> DNA

10 <213> Artificial sequence

<400> 9

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15 <210> 10

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tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

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Ser Leu Glu Ala Ile Val Lys Ala Gly Ile Thr Ile Pro Arg Asn  
 20 25 30

35 Pro Gly Cys Pro Asn Ser Glu Asp Lys Asn Phe Pro Arg Thr Val  
 35 40 45

Met Val Asn Leu Asn Ile His Asn Arg Asn Thr Asn Thr Asn Pro  
 50 55 60

40 Lys Arg Ser Ser Asp Tyr Tyr Asn Arg Ser Thr Ser Pro Trp Asn  
 65 70 75

45 Leu His Arg Asn Glu Asp Pro Glu Arg Tyr Pro Ser Val Ile Trp  
 80 85 90

Glu Ala Lys Cys Arg His Leu Gly Cys Ile Asn Ala Asp Gly Asn  
 95 100 105

	Val Asp Tyr His Met Asn Ser Val Pro Ile Gln Gln Glu Ile Leu	
	110	115 120
5	Val Leu Arg Arg Glu Pro Pro His Cys Pro Asn Ser Phe Arg Leu	
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	Glu Lys Ile Leu Val Ser Val Gly Cys Thr Cys Val Thr Pro Ile	
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	20 25 30	
	Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val	
30	35 40 45	
	Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu	
	50 55 60	
35	Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn	
	65 70 75	
	Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu	
	80 85 90	
40	Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile	
	95 100 105	
	Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg	
45	110 115 120	
	Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp	
	125 130 135	



Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg  
 140 145 150  
 5 Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln  
 155 160 165  
 Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe  
 170 175 180  
 10 Pro Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu  
 185 190 195  
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp  
 15 200 205 210  
 Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val  
 215 220 225  
 20 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val  
 230 235 240  
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu  
 245 250 255  
 25 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu  
 260 265 270  
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser  
 275 280 285  
 30 Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala  
 290 295 300  
 Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser  
 305 310 315  
 Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val.  
 320 325 330  
 40 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn  
 335 340 345  
 Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp  
 350 355 360  
 45 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys  
 365 370 375

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His  
 380 385 390

5 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser  
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Pro Gly Lys  
 408

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25 His Gly Thr Pro His Cys Tyr Ser Ala Glu Glu Leu Pro Leu Gly  
 35 40 45

30 Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln  
 50 55 60

Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His  
 65 70 75

35 Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val  
 80 85 90

Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser  
 95 100 105

40 Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr  
 110 115 120

Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile  
 125 130 135

45 Asp Ala Arg Thr Gly Arg Glu Thr Ala Ala Leu Asn Ser Val Arg  
 140 145 150

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	Glu	Phe	Ile	His	Val	Pro	Val	Gly	Cys	Thr	Cys	Val	Leu	Pro	Arg	
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10	Ser	Val	Pro	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	
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	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	
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	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	
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20	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	
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	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	
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25	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	
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	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	
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	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	
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35	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	
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	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	
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40	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	
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	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	
45					365					370					375	
	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	
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Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val  
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 Leu Ser Pro Gly Lys  
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 Pro Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln  
 35 40 45  
 25 Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile  
 50 55 60  
 30 Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser  
 65 70 75  
 Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu  
 80 85 90  
 35 Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly  
 95 100 105  
 Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu  
 110 115 120  
 40 Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser  
 125 130 135  
 Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu  
 45 140 145 150  
 Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr  
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	Thr	Pro	Asp	Pro	Thr	Thr	Asn	Ala	Ser	Leu	Leu	Thr	Lys	Leu	Gln	
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	Arg	Ser	Phe	Lys	Glu	Phe	Leu	Gln	Ser	Ser	Leu	Arg	Ala	Leu	Arg	
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	Pro	Gly	Leu	Asn	Cys	Thr	Val	Lys	Asn	Ser	Thr	Cys	Leu	Asp	Asp	
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	Ser	Trp	Ile	His	Pro	Arg	Asn	Leu	Thr	Pro	Ser	Ser	Pro	Lys	Asp	
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	Arg	His	His	His	Arg	Arg	Trp	Arg	Phe	Thr	Phe	Ser	His	Phe	Val	
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Val Asp Pro Asp Gln Glu Tyr Glu Val Thr Val His His Leu Pro  
 155 160 165  
 5 Lys Pro Ile Pro Asp Gly Asp Pro Asn His Gln Ser Lys Asn Phe  
 170 175 180  
 Leu Val Pro Asp Cys Glu His Ala Arg Met Lys Val Thr Thr Pro  
 185 190 195  
 10 Cys Met Ser Ser Gly Ser Leu Trp Asp Pro Asn Ile Thr Val Glu  
 200 205 210  
 Thr Leu Glu Ala His Gln Leu Arg Val Ser Phe Thr Leu Trp Asn  
 15 215 220 225  
 Glu Ser Thr His Tyr Gln Ile Leu Leu Thr Ser Phe Pro His Met  
 230 235 240  
 20 Glu Asn His Ser Cys Phe Glu His Met His His Ile Pro Ala Pro  
 245 250 255  
 Arg Pro Glu Glu Phe His Gln Arg Ser Asn Val Thr Leu Thr Leu  
 260 265 270  
 25 Arg Asn Leu Lys Gly Cys Cys Arg His Gln Val Gln Ile Gln Pro  
 275 280 285  
 Phe Phe Ser Ser Cys Leu Asn Asp Cys Leu Arg His Ser Ala Thr  
 30 290 295 300  
 Val Ser Cys Pro Glu Met Pro Asp Thr Pro Glu Pro Ile Pro Asp  
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 35 Tyr Met Pro Leu Trp  
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&lt;211&gt; 543

40 &lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

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 30 ctgctggctc gaggtgccaa gtggggggcag gctttgcttg tagccctggt 200  
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 35 acccaccagc gctccatctc accctggaga taccgtgttg acacggatga 350  
 ggaccgctat ccacagaagc tggccttcgc cgagtgcctg tgcagaggct 400  
 gtatcgatgc acggacgggc cgcgagacag ctgcgctcaa ctccgtgcgg 450  
 ctgctccaga gcctgctggt gctgcgccgc cggccctgct cccgcgacgg 500  
 45 ctgggggctc cccacacctg gggcctttgc ctccacacc gagttcatcc 550  
 acgtccccgt cggtgcacc tgcgtgctgc cccgttcagt gtga 594

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5 <220>  
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<400> 19  
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20 Val Val Ala Asn Pro Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn  
 20 25 30

25 Arg Arg Ala Asn Ala Leu Leu Ala Asn Gly Val Glu Leu Arg Asp  
 35 40 45

Asn Gln Leu Val Val Pro Ser Glu Gly Leu Tyr Leu Ile Tyr Ser  
 50 55 60

30 Gln Val Leu Phe Lys Gly Gln Gly Cys Pro Ser Thr His Val Leu  
 65 70 75

Leu Thr His Thr Ile Ser Arg Ile Ala Val Ser Tyr Gln Thr Lys  
 80 85 90

35 Val Asn Leu Leu Ser Ala Ile Lys Ser Pro Cys Gln Arg Glu Thr  
 95 100 105

40 Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro Ile Tyr Leu  
 110 115 120

Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser Ala Glu  
 125 130 135

45 Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly Gln Val  
 140 145 150

Tyr Phe Gly Ile Ile Ala Leu



155 157

<210> 20  
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 ctgtacctcg aggggtgcaga g 21  
  
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 25 ttagtagtcc 58  
  
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 <212> PRT  
 30 <213> Homo sapiens  
  
 <400> 22  
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 1 5 10 15  
 35 Leu Gly Leu Leu Leu Leu Leu Gly Val Leu Ala Pro Gly Gly  
 20 25 30  
 Ala Ser Leu Arg Leu Leu Asp His Arg Ala Leu Val Cys Ser Gln  
 40 35 40 45  
 Pro Gly Leu Asn Cys Thr Val Lys Asn Ser Thr Cys Leu Asp Asp  
 50 55 60  
 45 Ser Trp Ile His Pro Arg Asn Leu Thr Pro Ser Ser Pro Lys Asp  
 65 70 75

	Leu	Gln	Ile	Gln	Leu	His	Phe	Ala	His	Thr	Gln	Gln	Gly	Asp	Leu	
					80					85					90	
5	Phe	Pro	Val	Ala	His	Ile	Glu	Trp	Thr	Leu	Gln	Thr	Asp	Ala	Ser	
					95					100					105	
	Ile	Leu	Tyr	Leu	Glu	Gly	Ala	Glu	Leu	Ser	Val	Leu	Gln	Leu	Asn	
					110					115					120	
10	Thr	Asn	Glu	Arg	Leu	Cys	Val	Arg	Phe	Glu	Phe	Leu	Ser	Lys	Leu	
					125					130					135	
	Arg	His	His	His	Arg	Arg	Trp	Arg	Phe	Thr	Phe	Ser	His	Phe	Val	
					140					145					150	
15	Val	Asp	Pro	Asp	Gln	Glu	Tyr	Glu	Val	Thr	Val	His	His	Leu	Pro	
					155					160					165	
	Lys	Pro	Ile	Pro	Asp	Gly	Asp	Pro	Asn	His	Gln	Ser	Lys	Asn	Phe	
20					170					175					180	
	Leu	Val	Pro	Asp	Cys	Glu	His	Ala	Arg	Met	Lys	Val	Thr	Thr	Pro	
					185					190					195	
25	Cys	Met	Ser	Ser	Gly	Ser	Leu	Trp	Asp	Pro	Asn	Ile	Thr	Val	Glu	
					200					205					210	
	Thr	Leu	Glu	Ala	His	Gln	Leu	Arg	Val	Ser	Phe	Thr	Leu	Trp	Asn	
					215					220					225	
30	Glu	Ser	Thr	His	Tyr	Gln	Ile	Leu	Leu	Thr	Ser	Phe	Pro	His	Met	
					230					235					240	
	Glu	Asn	His	Ser	Cys	Phe	Glu	His	Met	His	His	Ile	Pro	Ala	Pro	
35					245					250					255	
	Arg	Pro	Glu	Glu	Phe	His	Gln	Arg	Ser	Asn	Val	Thr	Leu	Thr	Leu	
					260					265					270	
40	Arg	Asn	Leu	Lys	Gly	Cys	Cys	Arg	His	Gln	Val	Gln	Ile	Gln	Pro	
					275					280					285	
	Phe	Phe	Ser	Ser	Cys	Leu	Asn	Asp	Cys	Leu	Arg	His	Ser	Ala	Thr	
					290					295					300	
45	Val	Ser	Cys	Pro	Glu	Met	Pro	Asp	Thr	Pro	Glu	Pro	Ile	Pro	Asp	
					305					310					315	

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   <212> PRT
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5 <211> 175

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10 <223> Artificial sequence 1-175

Ile Phe Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg  
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Val Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met  
20 35 40 45

25    Asn Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln  
                        65                         70                         75

30 Ile Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala  
95 100 105

Asp	Arg	Ser	Met	Val	Ser	Val	Pro	Val	Phe	Ser	Gln	Val	Pro	Val
				125					130					135

Gln Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile  
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19

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 <211> 206  
 <212> PRT  
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5

<220>  
 <223> Artificial sequence 1-206

<400> 24

10	Met Thr Leu Leu Pro Gly Leu Leu Phe Leu Thr Trp Leu His Thr	
	1 5 10 15	
	Cys Leu Ala His His Asp Pro Ser Leu Arg Gly His Pro His Ser	
	20 25 30	
15	His Gly Thr Pro His Cys Tyr Ser Ala Glu Glu Leu Pro Leu Gly	
	35 40 45	
	Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln	
20	50 55 60	
	Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His	
	65 70 75	
25	Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val	
	80 85 90	
	Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser	
	95 100 105	
30	Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr	
	110 115 120	
	Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile	
35	125 130 135	
	Asp Ala Arg Thr Gly Arg Glu Thr Ala Ala Leu Asn Ser Val Arg	
	140 145 150	
40	Leu Leu Gln Ser Leu Leu Val Leu Arg Arg Arg Pro Cys Ser Arg	
	155 160 165	
	Asp Gly Ser Gly Leu Pro Thr Pro Gly Ala Phe Ala Phe His Thr	
	170 175 180	
45	Glu Phe Ile His Val Pro Val Gly Cys Thr Cys Val Leu Pro Arg	
	185 190 195	

Ser Val Gly His His His His His His His  
 200 205 206

<210> 25

5 <211> 271

<212> PRT

<213> Homo sapiens

<400> 25

10 Met Ala Lys Val Pro Asp Met Phe Glu Asp Leu Lys Asn Cys Tyr  
 1 5 10 15

Ser Glu Asn Glu Glu Asp Ser Ser Ser Ile Asp His Leu Ser Leu  
 20 25 30

15 Asn Gln Lys Ser Phe Tyr His Val Ser Tyr Gly Pro Leu His Glu  
 35 40 45

20 Gly Cys Met Asp Gln Ser Val Ser Leu Ser Ile Ser Glu Thr Ser  
 50 55 60

Lys Thr Ser Lys Leu Thr Phe Lys Glu Ser Met Val Val Val Ala  
 65 70 75

25 Thr Asn Gly Lys Val Leu Lys Lys Arg Arg Leu Ser Leu Ser Gln  
 80 85 90

Ser Ile Thr Asp Asp Asp Leu Glu Ala Ile Ala Asn Asp Ser Glu  
 95 100 105

30 Glu Glu Ile Ile Lys Pro Arg Ser Ala Pro Phe Ser Phe Leu Ser  
 110 115 120

35 Asn Val Lys Tyr Asn Phe Met Arg Ile Ile Lys Tyr Glu Phe Ile  
 125 130 135

Leu Asn Asp Ala Leu Asn Gln Ser Ile Ile Arg Ala Asn Asp Gln  
 140 145 150

40 Tyr Leu Thr Ala Ala Ala Leu His Asn Leu Asp Glu Ala Val Lys  
 155 160 165

Phe Asp Met Gly Ala Tyr Lys Ser Ser Lys Asp Asp Ala Lys Ile  
 170 175 180

45 Thr Val Ile Leu Arg Ile Ser Lys Thr Gln Leu Tyr Val Thr Ala  
 185 190 195

Gln Asp Glu Asp Gln Pro Val Leu Leu Lys Glu Met Pro Glu Ile  
 200 205 210  
 Pro Lys Thr Ile Thr Gly Ser Glu Thr Asn Leu Leu Phe Phe Trp  
 5 215 220 225  
 Glu Thr His Gly Thr Lys Asn Tyr Phe Thr Ser Val Ala His Pro  
 230 235 240  
 10 Asn Leu Phe Ile Ala Thr Lys Gln Asp Tyr Trp Val Cys Leu Ala  
 245 250 255  
 Gly Gly Pro Pro Ser Ile Thr Asp Phe Gln Ile Leu Glu Asn Gln  
 260 265 270  
 15 Ala  
 271  
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 20 <211> 177  
 <212> PRT  
 <213> Homo sapiens  
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 1 5 10 15  
 Leu Phe Leu Phe His Ser Glu Thr Ile Cys Arg Pro Ser Gly Arg  
 20 25 30  
 30 Lys Ser Ser Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln  
 35 35 40 45  
 Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu  
 50 55 60  
 35 Gln Gly Pro Asn Val Asn Leu Glu Glu Lys Ile Asp Val Val Pro  
 65 70 75  
 40 Ile Glu Pro His Ala Leu Phe Leu Gly Ile His Gly Gly Lys Met  
 80 85 90  
 Cys Leu Ser Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln Leu  
 95 100 105  
 45 Glu Ala Val Asn Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp  
 110 115 120

	Lys	Arg	Phe	Ala	Phe	Ile	Arg	Ser	Asp	Ser	Gly	Pro	Thr	Thr	Ser
					125					130					135
5	Phe	Glu	Ser	Ala	Ala	Cys	Pro	Gly	Trp	Phe	Leu	Cys	Thr	Ala	Met
					140					145					150
	Glu	Ala	Asp	Gln	Pro	Val	Ser	Leu	Thr	Asn	Met	Pro	Asp	Glu	Gly
					155					160					165
10	Val	Met	Val	Thr	Leu	Phe	Tyr	Phe	Gln	Glu	Asp	Glu			
					170					175		177			